

Evaluating the corrosion protection offered to submitted metal filter cans

Background: A Michaelman coated trays, filter cans, Caliburn stretch film and Daubert Protek Wrap paper were submitted to Cortec. An evaluation and comparison with equivalent Cortec Corporation products is sought.

Purpose: Evaluate and compare the protection offered by submitted products with Cortec Corporation equivalent products on submitted filter cans.

Method: ASTM D 1748-83 (120 deg F, 100% R.H.)

Materials: Michaelman coated trays
Filter cans
Caliburn stretch film
Daubert Protek Wrap paper
Cortec VpCI-416
Cortec VpCI-377
Cortec VpCI-146 paper
Cor-Pak VpCI stretch film

Procedure: The following were placed into environmental chamber;

- (1) Filter can enclosed within Daubert paper, Caliburn stretch film and Michaelman coated cardboard.
- (2) Filter can enclosed within Daubert paper and caliburn stretch film
- (3) Filter can enclosed within Caliburn stretch film and Michaelman coated cardboard
- (4) Filter can cleaned with Cortec VpCI-416 and enclosed within Caliburn stretch film
- (5) Filter can enclosed within Caliburn Stretch film
- (6) Filter can enclosed within Daubert paper and Michaelman coated cardboard
- (7) Filter can cleaned with Cortec VpCI-416 and enclosed within Michaelman coated cardboard
- (8) Filter can cleaned with Cortec VpCI-416 and enclosed within Daubert paper
- (9) Filter can enclosed within Daubert paper
- (10) Filter can enclosed within Cortec VpCI-146 paper
- (11) Filter can enclosed within Cortec VpCI-146 paper and Cor-Pak VpCI Stretch film
- (12) Filter can coated with Cortec VpCI-377 and enclosed within Cortec VpCI-146 paper
- (13) Filter can coated with Cortec VpCI-377 and enclosed within Cor-Pak VpCI stretch film.
- (14) Filter can



Results:

ASTM D 1748-83 (120 deg F, 100% R.H.)

Material	Condition after 5 days
Filter can enclosed within Daubert paper, Caliburn stretch film and Michaelman coated cardboard	Light corrosion
Filter can enclosed within Daubert paper and caliburn stretch film	Light corrosion
Filter can enclosed within Caliburn stretch film and Michaelman coated cardboard	Moderate to heavy corrosion
Filter can cleaned with Cortec VpCI-416 and enclosed within Caliburn stretch film	Very light corrosion
Filter can enclosed within Caliburn Stretch film	Heavy corrosion
Filter can enclosed within Daubert paper and Michaelman coated cardboard	Heavy corrosion
Filter can cleaned with Cortec VpCI-416 and enclosed within Michaelman coated cardboard	Light corrosion
Filter can cleaned with Cortec VpCI-416 and enclosed within Daubert paper	Moderate to heavy corrosion
Filter can enclosed within Daubert paper	Heavy corrosion
Filter can enclosed within Cortec VpCI-146 paper	Light to moderate corrosion
Filter can enclosed within Cortec VpCI-146 paper and Cor-Pak VpCI Stretch film	Light corrosion
Filter can coated with Cortec VpCI-377 and enclosed within Cortec VpCI-146 paper	No Corrosion
Filter can coated with Cortec VpCI-377 and enclosed within Cor-Pak VpCI stretch film	No Corrosion
Filter can only	Heavy Corrosion

Photos attached

Conclusion:

- (1) Filter can coated with Cortec VpCI-377 and enclosed within Cortec VpCI-146 paper showed no corrosion after the test period.
- (2) Filter can coated with Cortec VpCI-377 and enclosed within Cor-Pak VpCI stretch film showed no corrosion after the test period.

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Caliburn Stretch Film



Caliburn Stretch Film and Michaelman Cardboard



Daubert NoxRust Paper



Daubert paper and Caliburn Film



Daubert paper and Michaelman cardboard



Caliburn film, Daubert paper and Michaelman cardboard



VpCI-146 paper



VpCI-416 and Caliburn Stretch Film



VpCI-416 and Daubert paper



VpCI-416 and Michaelman cardboard



VpCI-146 paper and Cor-Pak Stretch Film



VpCI-377 and Cor-Pak VpCI Stretch Film



VpCI-377 and VpCI-146 paper



Filter only